



## Getting Patients Back on Their Feet Sooner

Long periods of rest in bed were once thought to be key to recuperating after an operation. Now health-care providers know the opposite is true. Moving as soon as possible is especially important after joint replacement surgery. Early mobility leads to a speedier recovery and return to full functioning.

In 2015, physical therapists began a mobilizing effort—encouraging hip and knee replacement patients to take their first steps on Day 0, the day of surgery. Today, more than half of patients start walking on their new joints on the same day they receive them.

“Patients can walk as early as three hours after surgery,” says physical therapist Corinne Fairweather, PT. “Generally, people with hip replacements do better sooner than those with knee replacements who have had a femoral nerve block [a local anesthetic that numbs the leg]. But some knee replacement patients are able to walk right away as well.”

Day 0 PT is possible, in part, thanks to an increase in the number of physical therapists and the creation of an evening shift to accommodate patients who return from the recovery room late in the day.

### Changes in pain relief

The adoption of spinal anesthetic as opposed to general anesthetic during joint replacement has been instrumental in enabling patients to walk soon after surgery. “Studies have shown that regional anesthesia improves recovery rate and pain postoperatively,” says Ayesha Abdeen, MD, joint replacement surgeon. “Both general and regional anesthetics are equally safe; however, general anesthesia can be associated with increased pulmonary and gastrointestinal side effects as well as increased sedation after surgery.”

The Orthopaedic team of joint surgeons worked with the Department of Anesthesia to develop new protocols for pain relief preoperatively, during surgery, and



*Physical therapist Corinne Fairweather guides the steps of Peggy Kelly, who is recovering from knee joint replacement surgery.*

postoperatively. When patients come to the inpatient floor after surgery, they are now less groggy and more capable of moving.

“Patients are more alert,” says Abdeen. “They feel better and have less reliance on pain medication.”

### Return to activity

While patients are in the hospital, they receive a daily dose of 30 to 45 minutes of physical therapy designed to improve muscle strength and joint flexibility. They are also encouraged to exercise on their own several times a day.

In addition, the physical therapists teach patients how to walk with a walker and crutches, plus how to position the new joint during daily activities and when sleeping.

“We want as much mobility as possible,” says Fairweather. “We recommend that patients walk with the nurses or aides, get out of bed and sit in the chair for all meals, and walk to the bathroom when they can.”

The use of continuous passive motion (CPM) machines for knee replacement patients has largely been discontinued in the past two years. Research, agreed orthopaedic surgeons and physical therapists, did not show a benefit for people who have had a total knee replacement without complications.

“What someone does actively is much more important than what a machine does passively,” explains Fairweather. “Where people are able to participate, we want them doing their exercises, so they have a good range of motion and a quicker recovery.”

Rehabilitation expectations, which are set during Preadmission Testing and reinforced during joint replacement patient education classes, prepare patients to walk on Day 0. Patients become motivated the more they move and realize they are on the road to recovery. ■



## Partners in Care

Patients are now better prepared for joint replacement surgery thanks to an array of new and revised educational tools. In-person classes and online videos help prospective patients learn what to expect before, during, and after surgery. A comprehensive guidebook and a step-by-step checklist serve as handy written references. By learning all about the surgery, patients can become full partners in managing their care.

Patient education classes, which last about two hours, are updated with the latest medical care information. Classes include a question-and-answer session in which participants can ask general questions or raise concerns. A case manager discusses discharge planning, while a physical therapist reviews exercises for the hip and knee, and talks about physical therapy in the hospital. A staff nurse covers such topics as: what to bring to the hospital, dressings and drains, pain medications, fall precautions, deep breathing exercises, and blood clot prevention.

"We encourage all patients to come to class and bring along a family member or friend," says Unit-Based Educator Caroline Torney, RN. "Classes are held in the solarium on Reisman 12, the floor where patients stay postoperatively. This is helpful for patients to get a sense of where they will be after their surgery, which is a big stress reliever."

Classes are held four times a month on Monday and Wednesday from 11 to 1 and Tuesday and Thursday from 4:30 to 6:30. Patients can get a class schedule from their surgeon or at their preadmission testing appointment. Parking is available in the nearby Feldberg garage.

If patients are unable to attend classes due to work or distance from the hospital, they can watch BIDMC-produced online videos that explain joint replacement surgery in detail. (Go to <http://www.bidmc.org/tjrvideos>.)

"Being able to get this education preoperatively in order to know what to prepare for postoperatively is hugely helpful," says Torney. "More often than not, patients leave classes saying, 'I feel so much better.' It seems to ease a lot of anxiety for them."

### Step-by-step guides

When patients make the decision to have hip or knee joint replacement surgery, they receive a comprehensive guidebook from their orthopaedic surgeon. This 62-page



*In the pre-op patient education class, Megan Mahoney, RN, explains what to expect during hospitalization to patients preparing for joint replacement surgery.*

binder is divided into sections with colorful tabs, making finding information easy. Lauri Askari, NP, recently updated the reference, working in collaboration with Douglas Ayres, MD, MBA; Ayesha Abdeen, MD; and Robert Davis, MD, of the Joint Service, and Deb Adduci, PT, Clinical Manager of Inpatient Physical Therapy/Occupational Therapy. Ayres created the original guidebook with the help of Jane Wandel, RN, in 2008.

The newest version reflects the current practices of the clinicians. For example, it tells patients to expect to be in the hospital for two days after surgery. It also covers changes in pain management. "We are implementing a variety of modalities for pain control postoperatively,"

says Askari.

"We have discontinued the use of PCAs [patient controlled analgesia]. The pain management regimen now includes a combination of narcotic and non-narcotic medications."

The guidebook helps patients understand joint replacement surgery and make sure it's the right option for them. It covers the entire process, including the preadmission appointment, day of surgery, hospital stay, rehabilitation, and recovery at home. A section is devoted to physical therapy exercises and positioning following joint replacement. Another contains answers to frequently asked questions.

"After reading the guidebook, patients come in knowing more about surgery as well as recovery," says Askari. "They are better prepared about the entire process and can advocate for themselves."

Also available now is a step-by-step joint replacement checklist, developed at the urging of patients. "Patients said, 'I need to know at a glance what's going to happen to me,'" says Wandel, Program Director of Patient and Staff Communications in Patient Care Services.

The four-page, easy-to-read checklist helps patients track their progress from the weeks leading up to surgery through discharge. In addition to steps to check off, the handout, designed by Kristina Cicolova of BIDMC Media Services, has "Good to Know" call-out boxes. These contain useful information about blood-thinning medications, Staph aureus testing, pain control, and more. "The checklist gives patients a map, which helps them to navigate, to know what they need to do," says Wandel. "This translates to a measure of comfort and control." ■